DOCUMENT RESUME

ED 354 246 TM 019 447

AUTHOR Baird, William
TITLE Evaluation of "Blueprint for the Future": Literature Review and Evaluation "Tool Kit."
INSTITUTION Scarborough Board of Education (Ontario). Research Centre Program Dept.
REPORT NO RR-89/90-28
PUB DATE Aug 90
NOTE 48p.
PUB TYPE Guides - Non-Classroom Use (055) -- Information Analyses (070) -- Tests/Evaluation Instruments (160)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Consultation Programs; Educational Assessment; *Educational Planning; Elementary Secondary Education; *Evaluation Methods; Evaluation Utilization; Foreign Countries; Formative Evaluation; Guides; Intervention; Literature Reviews; Mainstreaming; *Program Evaluation; *Staff Development; Summative Evaluation
IDENTIFIERS *Blueprint for the Future Program ON; *Large Scale Programs; Scarborough Board of Education ON

ABSTRACT

This literature review and evaluation "tool kit" provides a summary of the research literature about the evaluation of large-scale intervention policies like the Blueprint for the Future program of the Scarborough (Ontario, Canada) Board of Education. This report is intended to assist in creating a realistic plan for the Blueprint evaluation. An introduction covers the general concerns that must be considered when evaluating program implementation. Evaluating process versus outcome, fidelity versus impact, and program components and outcomes is considered. General evaluative methods are reviewed. The rest of the report deals more specifically with the evaluation of the Blueprint program process and outcomes. Sections on process and outcomes each discuss: (1) consultation; (2) intervention; and (3) staff development. Appendixes list three instruments that are available for summative and formative evaluation of Blueprint in the area of teacher interventions, role conflict and ambiguity, and attitudes toward mainstreaming. A fourth appendix provides examples of items from response choice questionnaires. (SLD)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☒ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

H. J. DILLING

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

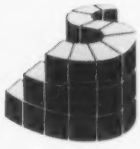
ED354246

Research Report

EVALUATION OF "BLUEPRINT FOR THE FUTURE": LITERATURE REVIEW AND EVALUATION 'TOOL KIT"

#89/90 - 28

William Baird, M.A.
Research Associate



Scarborough Board of Education

Issued by the Research Centre
Programs Department

TM019447

BEST COPY AVAILABLE

EVALUATION OF "BLUEPRINT FOR THE FUTURE": LITERATURE REVIEW AND EVALUATION "TOOL KIT"

#89/90 - 28

William Baird, M.A.
Research Associate

August, 1990

Lorna Earl, Ph.D., Research Director
and General Editor

TABLE OF CONTENTS

	PAGE
ACKNOWLEDGMENT	iii
PREFACE	1
INTRODUCTION	2
WHAT TO EVALUATE	2
Process Versus Outcome	2
Fidelity Versus Impact	2
Program Components	3
Possible Outcomes	4
A. Outcomes as Changes in the Participants	4
B. Outcomes as Changes in Organizational Capacity.	11
HOW TO EVALUATE	15
Data Collection Instruments	15
Research Design	15
WHAT TO DO WITH RESULTS	17
Formative and Summative Evaluation	17
Timing	17
Making Sure the Results Are Relevant	18
Feedback to Participants	19
PROCESS EVALUATION OF BLUEPRINT: POSSIBLE APPROACHES	21
Consultation	21
Intervention	23
Staff Development	24
OUTCOME EVALUATION OF BLUEPRINT: POSSIBLE APPROACHES	27
Consultation	27
Intervention	30
Staff Development	32
SUMMARY	35
BIBLIOGRAPHY	37
APPENDIX A Teacher Intervention Questionnaire	41
APPENDIX B Role Conflict and Ambiguity Questionnaire	45
APPENDIX C Attitudes Towards Mainstreaming	47
APPENDIX D Examples of Items from Response Choice Questionnaires	49

ACKNOWLEDGMENT

I would like to thank for following people for their contributions to this report:

- Lorna Earl, for enlightened supervision.
- The Blueprint Steering Committee, for useful advice and suggestions.
- Marilyn Hale, for proofing the report.
- Marg Jackson, for typing the report.
- The Research Centre Staff, for their support.

PREFACE

The mission statement for the "Blueprint for the Future" states the following:

> Special Education Services of the Scarborough Board of Education is committed to **sharing expertise** and to **providing direct support to students, school personnel and families** in order to ensure that every student with special needs is provided with the **most enabling learning environment.**

Underlying this clear and straightforward statement is a complex set of strategic policies, objectives, strategies and action plans guiding the implementation of the plan over a projected five- to seven-year period.

One of the policy strategies put forward by the plan states that "Systematic and ongoing evaluation shall be an essential element for all Special Education Services". This report is one result of this policy. It is a literature review focusing on the evaluation component of implementing a large-scale integration program such as Blueprint[1]. It has been compiled to offer the Blueprint steering committee a comprehensive overview of those factors which have been identified in other research as influential in implementing team-centered consultation models, as well as some suggestions about data-collection methods and instruments.

The introduction to the report covers the general concerns that have to be considered when evaluating program implementation. The rest of the report is divided into two sections; one dealing with program **process** and the other with program **outcomes**. Research directed at process attempts to identify what program activities are actually taking place, as well as what barriers or facilitators are affecting the implementation process. Research directed at outcomes attempts to assess the effect of the program on all participants -- practitioners as well as clients.

These two sections (Process Evaluation and Outcome Evaluation) are further divided into sections representing the three main program components of Blueprint: Consultation, Intervention, and Staff Development. Suggestions for process or outcome evaluation are organized within these program component headings. Some available survey instruments suitable for use with Blueprint are included in the Appendices.

---

[1]The term "integration" will be used in this report to refer to the type of program that the Blueprint is trying to implement. The term "mainstreaming" is often used in the research literature, and is retained here in the original titles of questionnaires or articles.

INTRODUCTION

Evaluation of a large-scale policy change like Blueprint can take many forms and requires many decisions. This introduction provides brief descriptions of some of the evaluation concerns that need to be considered, and decisions that need to be made, in planning an evaluation of Blueprint.

Three major questions have to be answered when planning any evaluation:

- **What to evaluate?** A large-scale and complicated policy initiative such as the Blueprint contains numerous factors that may influence the success of the program. A framework is required to organize these factors.
- **How to evaluate?** Choosing appropriate instruments enables quality data to be collected. Great care has to be taken to make data collection practical, non-intrusive and non-threatening.
- **What to do with the results?** How results are fed back to program decision-makers, as well as practitioners in the field, determines how much this information will actually be used to make adjustments.

WHAT TO EVALUATE

PROCESS VERSUS OUTCOME

There are two types of evaluation data that can be collected: process and outcome. Process evaluation has to do with describing in detail what is actually happening as a program is being implemented. Process evaluation is done to verify that a program is indeed operating as it was intended and to determine the factors that influence implementation. Outcome evaluation establishes whether a program is having any effect on the participants (i.e., practitioner, student or parent).

An evaluation of Blueprint should include both process and outcome data collection. The value of outcome data is obvious -- the bottom line is to find out whether or not the program is having an effect. The value of process data usually becomes apparent when an explanation is needed to account for outcome differences; for example, to explain why the program worked at one school but not at another, or to provide descriptions to others who want to duplicate the program.

FIDELITY VERSUS IMPACT

When a program's goals, procedures and expected outcomes are stipulated in detail, it is possible to assess implementation in terms of the extent to which a program in practice matches the program as intended. The more fidelity to an original conception is sought after, the less local initiative is encouraged. Blueprint, by contrast, exemplifies an organizational development approach to program implementation which encourages

local initiative and is designed to increase individual and organizational capacity to function with new demands and a new way of doing things; for example, with a new model of service delivery. While all participants take part in the same preparatory inservice training, the actual form that collaborative consultation will take depends on the decisions of each school support team as it responds to the local school conditions and problems. The focus in evaluating such an approach, therefore, should be less on fidelity of implementation and more on the relative impact the program is having in each school on meeting the needs of students with special needs.

Another reason for emphasizing program effectiveness and not fidelity is the fact that while Blueprint advocates a consultation approach to integration, no "pure" form of service delivery is being implemented. Maria Yau of the Toronto Board of Education identified four "pure" models of service delivery for meeting the needs of learning-disabled students other than pull-out programs (Yau, 1988). These were: the consulting teacher model, the consulting and resource teacher model, the problem-solving team model and the team-teaching model. While research differentiates between these in an attempt to isolate what "pure" model works best, these models are usually combined in practice in a more eclectic approach to service delivery.

With a program like Blueprint which emphasizes local initiative, as well as an eclectic, problem-solving approach to service delivery, it makes more sense to evaluate the program in terms of impact rather than fidelity.

PROGRAM COMPONENTS

Evaluation of Blueprint will require "simultaneous and systematic attention to multiple influences and multiple outcomes" (Little, 1982). Things are happening at a number of levels [board of education, school, classroom, individual (e.g., teacher, support staff, student)], and there are different influences and outcomes at each level.

In an ideal world, with unlimited time and resources, it would be possible to carry out a comprehensive and complete evaluation of Blueprint. However, under the constraints imposed by the real world, it is necessary to set priorities and to develop a strategy to identify the important core components to be evaluated.

The Blueprint plan has three main components:

- Consultation
- Intervention
- Staff Development

The core component of the program is the consultation process involving the school support teams, the resource/consulting teachers and the regular teachers. Undergirding the consultation process is the preparatory inservice training delivered by central office. As well, the school support teams have the responsibility of identifying the ongoing needs for inservice at the school level and to develop the necessary networking to meet these needs. Finally, the output of the consultation is classroom intervention -- putting an intervention plan by the regular classroom teacher into practice.

Analyzing a program into its components is important for interpreting results. It becomes clearer what to do with particular data when it is clear which aspect (component) of a complex process the data is reflecting. In the case of Blueprint, process and outcome data will reflect the status of the consultation, intervention or staff development process.

POSSIBLE OUTCOMES

One of the most important decisions to be made in carrying out a program evaluation involves the choice of outcomes by which to judge the success of a program. In general, there are two types of outcomes: 1) changes that occur in the participants themselves, both practitioner and student, and 2) changes that occur in organizational capacity and functioning.

This section provides a description of the most important outcomes identified in the evaluation literature on the integration of special education students into regular classrooms.

A. Outcomes as Changes in the Participants

(i) Practitioner Outcomes: Attitudes Towards Integration

Both **training** and **experience** have been shown to influence attitudes towards integration. Attitudes are understood to be effects rather than causes in this research. In other words, attitudes are seen to be a sort of barometer which reflect various degrees of good or bad experience with integration, or relative levels of expertise and comfort with special needs.

Inservice training can influence teachers' attitudes towards integration, but only if this training is fairly intensive. Larrivee (1981) found that after an intensive six-week (4 hours a day) summer workshop, participants had more positive attitudes than either a random sample of teachers who received no training, or a group of teachers who received once-a-month inservice (2 hours each time) for eight months. The latter two groups did not differ in their attitudes towards integration. Interestingly, the item on the questionnaire which revealed the greatest difference between the groups stated that "regular teachers possess a great deal of the expertise necessary to work with special needs students".

Leyser (1988) found similar results with student teachers undergoing a preservice program involving coursework and field experience over two years, compared to a control group of student teachers. She found that these two groups differed not only in attitudes but in classroom effectiveness with exceptional children. The students with special needs evidenced less on-task behaviour in the classrooms taught by the control teachers.

Larrivee (1981) identified three features necessary for training to actually have an influence on attitudes:

- Actual contact with handicapped or other children with special needs during the training.
- A focus on knowledge and skill attainment.

- The presence of strong supportive assistance for teachers.

Attitudes can reflect differences in actual experience with teaching exceptional children. For example, school administrators are usually the most positive about integration, classroom teachers are the least positive, and special education teachers fall somewhere in between (Garvar-Pinhas and Schmelkin, 1989). Regular teachers who report more experience with disabled students also tend to report more positive attitudes towards integration (Hayes and Gunn, 1988).

Attitudes towards integration also vary with the level of learning disability or handicap considered. Berryman (1988, 1989) found that both teachers and the lay public felt positive towards integrating students with mild disabilities such as stuttering, or with handicaps that do not interfere with their learning ability (e.g., diabetes, epilepsy). Negative attitudes were felt for integrating students with serious behaviour disorders or discipline problems. Neutral attitudes ("uncertain") were felt toward integrating blind, deaf, physically-handicapped and educable mentally retarded students. Center and Ward (1987) found similar results in Australia. They argue that the positive attitude towards integrating students with mild disabilities is based on the assumption that these students will not require extra instructional or management skill on the part of the classroom teacher.

Center and Ward (1987) also found that regular and resource teachers disagreed regarding the integration of students who required additional educational or behavioural strategies in teaching (e.g., students with impaired language skills, intellectual disability, short attention span and aggressive tendencies). They make an interesting observation about the effect of labelling students on regular teachers' attitudes towards integration:

> "Although children with short attention span, hyperactivity or individualized instructional needs always have been found within the regular classroom, when identified as disabled, they appear to generate some anxiety concerning the suitability for mainstreaming."

Regular classroom teachers, therefore, tend to be reactive to integration because of the anxieties associated with it. Even if they agree with the philosophy behind integration, teachers are very aware that it will "make their jobs more difficult and frustrating" (Hayes and Gunn, 1988). Center and Ward (1987) found that, if regular teachers feel that they lack the expertise or the support necessary to deal with special needs students, they will tend to overreact by being conservative in their teaching approach with such students, rather than extending their skills. The resource teacher can have an important moderating influence on the regular teacher by providing the necessary support in the classroom.

(ii) Practitioner Outcomes: Skill Development

Skill development is an obvious outcome expected of staff development programs. Yet, there are few examples in the research literature in which skill development is directly measured as an outcome. This is due to the difficulty in testing skill directly. It would require either a time-consuming simulation or ongoing observation and evaluation of staff by an experienced practitioner. Typically, skill development is evaluated indirectly; for example, by combining process measures (practitioners' practices) with outcome measures (client outcomes). If the process measures confirm that certain

practices indeed occurred, and the outcome measures indicate client improvement, then we can conclude that adequate skill was used in carrying out the interventions or treatments.

Another method of indirectly evaluating skill development is to elicit a self-report or self-assessment of performance in different skill areas. In this case, the same checklist that is used in establishing frequency of use of particular practices or activities is used to ask the same respondents to indicate the practices in which they feel competent and the ones where they require further training. In evaluating Blueprint, information gathered to describe the process can also be used to identify areas of accomplished skill development or areas where further training is required to enhance skills in the following areas: school support team procedures, consultation practices and classroom intervention practices. In effect, the formative evaluation of practitioners' skill development resembles an ongoing needs assessment.

(iii) Practitioner Outcomes: Perceptions About the Consultation and Intervention Process

During the first few years of Blueprint it is probably important to find out what the regular teachers, resource teachers and school support team members think of how well the consultation process is working. A vital feature of the consultation process is the relationship between the consulting/resource teachers and the regular teachers. This relationship involves a number of issues which, if not dealt with, can lead to conflict rather than collaborative consultation. Glatthorn (1990) lists the following possible sources of conflict between consultants and consultees:

- Different perceptions of the role of the special educator.
- Different frames of reference concerning teaching and learning; for example, individualized versus group instruction; or an emphasis on a wide range of learning and coping skills versus academic skills and content.
- Different work-related languages (terminology, jargon).
- Different methods and materials.
- Different perceptions of each other's competence in working with mildly-handicapped students.

The research literature identifies a number of different ways of looking at the consultation process: role perceptions held by the participants, expert versus collaborative consultation, satisfaction and stated concerns and intervention acceptability.

Role Perceptions: Crane and Iwanicki (1986) investigated the relationship between the role conflict and ambiguity felt by special educators, and job stress and burn-out. They found that role conflict was closely linked with emotional exhaustion and depersonalization, while role ambiguity was linked to a relative feeling of personal accomplishment. They also found that special education teachers in self-contained classrooms showed higher levels of burn-out than did resource room teachers. Measures of the amount of role conflict and ambiguity a teacher experiences is linked, therefore, to an important outcome -- the relative feeling of job satisfaction which can not only prevent burn-out, but also be a motivator in doing a better job. At the very least, if teachers

evidence high role conflict and ambiguity in a program, it is fairly likely that the atmosphere is not ripe for acquiring new skills.

Expert versus Collaborative Consultation: Another way of looking at role perceptions, which does involve the regular teachers, is the perceptions that regular teachers and consultants have of each other's roles. A distinction is made between an expert model and a collaborative model of consultation. Phillips and McCullough (1990) elaborate as follows:

> In expert models, the relationship between the consultant and consultee is hierarchial: the consultant serves as the expert and the consultee as the recipient of the expertise...In the collegial relationship, peers who share some basic body of knowledge join in exchanging specific ideas and experiences to solve problems encountered in areas of mutual understanding or interest.

Teachers prefer a collaborative model of consultation (Pryzwansky and White, 1983). Because the consultation process is basically one of help-seeking by the consultee and help-giving by the consultant, this process is not an emotionally-neutral one, but one infused with anxiety, resistance and power struggles. Witt and Martens (1988) identify two major problems with the use of a purely expert model of consultation in education: 1) Teachers begin to expect that the "experts" will have all the answers; and, 2) The help delivered, while effective in the short term for the student, may have long-term negative effects for the teachers; namely, reducing their control and responsibility over teaching, reducing their motivation to acquire new skills, and lowering their perceived self-efficacy. So it is easy to see why teachers' caution, and even resistance, is to be expected. As Margolis and McGettigan (1988) point out, teacher resistance can be interpreted as the kind of caution to be expected as the legitimate reaction of a professional who is concerned with maintaining autonomy in how they teach their students.

Satisfaction and Stated Concerns: Role perceptions deal with the most abstract level at which people perceive each others' responsibilities and competence. There is also the more practical level of how well the program appears to be working, how participants feel the implementation is going and how satisfied they are with the program. Typically, the most direct way to get this information is an open-ended questionnaire or interview in which respondents are simply asked to state in their own words how satisfied they are with a program, and what their concerns are.

Chalfant and Van Dusen Pysh (1989) used such an open-ended questionnaire to collect information about teachers' reactions to consultation with Teacher Assistance Teams. Even though TAT's are composed only of regular teachers, the general response categories that Chalfant and Van Dusen Pysh constructed to organize the teachers comments probably represent issues and concerns about consultation in general. They organized the positive comments into six categories of statement of satisfaction:

- Effectiveness of group problem solving to generate useful strategies.
- Provision of moral support and reinforcement of teachers by team members.
- Improvement of student performance and behaviour.

- Facilitation of communication among faculty and improvement in the use of interpersonal skills among teachers.
- Improvement of skill and comfort level in analyzing and understanding classroom problems.
- Assistance in expediting the referral process (evaluation and placement).

Negative comments were classified into eight categories of statement of concern:

- Insufficient time allocated for team meetings and implementation.
- Failure to generate useful intervention strategies.
- Interference with special education referral process.
- Lack of faculty readiness to initiate the team.
- Little or no impact on student performance or behaviour.
- Inefficient organization and management of team meetings.
- Too much paperwork.
- Confusion about the role of TAT and other building (i.e., within-the-school) programs.

Concerns voiced in other surveys (Center and Ward, 1987; Bauwens et al., 1989) included:

- Anxiety about own lack of skills involving children with special needs.
- Not enough time for individual attention for these students; classes too large.
- Lack of back-up support from support services.
- Difficulty of developing cooperative working relationships with others, especially if they have different training.
- Anticipation of increased workload in having to teach students with special needs.

Intervention Acceptability: Of all the regular teachers' concerns, one concern has received particular emphasis in the research literature on consultation. This has to do with the critical issue of teachers' judgments of the "acceptability" of interventions developed in consultation with special education or other support staff.

Martens et al. (1986, 1989) define intervention acceptability as "judgments of whether treatment is fair, reasonable or intrusive, appropriate for the problem, and consistent with notions of what treatment should be". In one study they mailed a 65-

item questionnaire ("Classroom Intervention Profile") to about 2500 regular and special education teachers in Iowa (Martens et al., 1986). The teachers were asked to rate each described intervention on a five-point Likert scale on three dimensions: relative effectiveness, ease of use and frequency of use. The results showed that teachers intuitively organize intervention strategies into separate categories. Two types of strategy were rated highly on all three dimensions: "Redirection of the student toward appropriate behaviour via a signal"; and "Manipulation of previously contracted material rewards". Martens et al. (1986) conclude that teachers prefer intervention strategies that reinforce appropriate behaviour rather than punish inappropriate behaviour. Also, teachers prefer signalling strategies which require little in the way of teacher time and resources, rather than strategies, such as point reward systems, that require extra time. An interesting result was teachers' response to strategies involving consultation with "specialists". While strategies resulting from consultation were seen as effective, they were rated low in ease of use. Martens et al. (1986) conclude that teachers are particularly sensitive to demands on their time, including meetings with other school personnel.

A different methodology was used by Martens and Meller (1989) to study the effect of differences in child or classroom characteristics on judgments of intervention acceptability. They presented student teachers with two vignettes describing a student with problematic behaviour. One vignette contained an additional description of the child himself/herself (level of intelligence, degree of popularity and long-standing versus short-term problem), while the second vignette described characteristics of the classroom (regular or self-contained, size and student composition). The teachers were then asked to fill out a 15-item Likert scale instrument called the Intervention Rating Profile which measures different aspects of intervention acceptability. The results showed that teachers' ratings were affected by child characteristics but not by classroom characteristics, revealing a "child-centered" as opposed to "environmental" perspective on the causes of students' problems. They also found that teachers anticipate little success in treating long-standing problems, suggesting that "during consultation, the extent to which teachers perceive themselves as competent in changing children's behaviour may be an important issue" (Martens and Meller, 1989). Any evaluation of teachers' judgments of intervention acceptability should take into consideration mitigating circumstances such as the particular academic or behavioral problems encountered.

While Martens et al. (1986) have produced much important information about intervention acceptability, the most promising instrument for establishing both degree of use and judged "reasonableness" (i.e., acceptability) is the Teacher Intervention Questionnaire developed by Johnson and Pugach (1990). (This questionnaire is described later in the Process Evaluation section.) Johnson and Pugach stress that it is important to compare judged reasonableness to actual reported use. Any discrepancies indicate areas in which teachers may require more information, more inservice training or more encouragement. For example, they found that teachers rated "compiling data about behaviour problems" and "classroom demonstrations" as very reasonable, but infrequently done in actuality.

Johnson and Pugach (1990) also interviewed the respondents to ask them "what factors they considered when determining whether an intervention was reasonable or unreasonable". The responses fell under nine general categories:

- Sends wrong message (i.e., intervention could communicate to students that they got away with something).
- Too time consuming.
- Not fair to other children (i.e., preferential treatment).
- Makes problem worse.
- Doesn't work on the actual problem.
- Another strategy in teacher's experience has been more successful.
- Diminishes teacher authority (i.e., seeking help thought of as admitting defeat).
- Organizational rules/structures discourage use (i.e., the way a classroom or school is organized and managed prevents intervention from being fully implemented).
- Intervention inappropriate given child's age or severity of the problem.

Johnson and Pugach (1990) concluded that, in general, teachers were more able to state why they had not selected an intervention than why they had selected it.

A similar list of teachers' concerns about the "feasibility" of intervention was drawn up by Phillips and McCullough (1990) as part of a paper on the necessity of having a collaborative ethic as a basis on which to ground consultation-based programming. They note that a persistent criticism of consultation by regular teachers is that it often generates "unrealistic solutions", and that consultants fail to recognize "the complexity of regular classrooms and the pressures imposed on regular teachers". They point out that there is a high probability that teachers will "reject any intervention outright, before contemplating its merits, if they believe that the consultant has not adequately considered feasibility".

(iv) Student Outcomes.

Student performance can be assessed using either norm-referenced or criterion-referenced assessments. Although norm-referenced tests in reading and math have been used with mildly disabled students, results rarely show a direct relationship between treatment or intervention and changes in student achievement. Even the research with normal students reveals a weak relationship between classroom instruction and student performance. This is due to the interference of a variety of other factors such as intelligence, family life, social influences and school organization. As well, changes in achievement evidence themselves only in the long term. For these reasons it is likely more useful to evaluate the "impact" of a program like Blueprint in the short term using criterion-referenced assessment rather than "improvement" as measured by standardized tests. Program impact refers to short term behavioural or experiential changes in a student's school experience. One fairly accessible form of criterion-referenced assessment that is particularly well suited for evaluating the performance of students with special needs is **goal attainment scaling**.

This technique was developed in the clinical field to account for wide variation in individual client needs and in the type of treatment delivered. By utilizing a common scale and format, but allowing differences in content, goal attainment scaling allows for comparison across different presenting problems, different classroom environments, as well as different grades. It is also beneficial in that it involves teacher and student in a shared contractual relationship.

One champion of the use of goal attainment scaling in the education field advocates that staff receive adequate training **before** implementing the technique (Maher 1983, Maher and Barbrack 1984). With Blueprint, the obvious way to do this would be through the school support teams with ongoing support from the resource/consulting teachers.

(v) Parent Outcomes.

Blueprint has a serious commitment to parental involvement in, and satisfaction with, the program. Parental involvement has been shown to have beneficial effects on student outcomes. Hayek (1987) listed the following benefits for the family:

- A better understanding of the instructional needs of the child.
- Active participation in the formulation of educational alternatives.
- The carrying out of essential follow-up activities in the home.
- The development of an understanding of the reasons for possible referral to special education if such a recommendation is made.

While the importance of parental involvement is generally recognized at the intellectual level, the presence of some negative underlying assumptions and beliefs on the part of practitioners may prove to be barriers to the process of involving parents in the consultation and intervention process. In a recent survey of special educators, Donnallan and Mirenda (1984) found that "78 percent believed parents were not competent to choose appropriate goals for the children's education, 40 percent thought parents uncooperative and 38 percent thought them unrealistic" (cited in Lipsky, 1989). It might be worthwhile to survey the perceptions of the staff most directly involved with the families about their perceptions of family involvement, not so much with an emphasis on their beliefs as in the study mentioned above, but rather on the problems and difficulties associated with involving parents, the experience of which may be the underlying cause of these negative beliefs.

B. Outcomes as Changes in Organizational Capacity.

(i) School Support Team Effectiveness.

The team aspect of consultation has to do with the group problem solving process the members engage in with teachers. This problem-solving process can be broken down in two ways -- into component skills or into different stages.

Team Skills: In a review article on Child Study Teams, Moore et al. (1989) list three major types of skills required by teams if they are to function effectively: 1) interpersonal communication skills, 2) group decision-making strategies, and 3) state-of-the-art evaluation techniques.

Communication within a group whose composition is multi-disciplinary is quite problematic. One salient barrier is the presence of different technical languages associated with the different professions represented on such teams. For effective communication of information there is a need for a "common vocabulary" to evolve within a group (Moore et al., 1989). As well, there is a need for the non-teaching members of the team to be able to communicate and negotiate with teachers in a way that facilitates collaboration. Research has demonstrated that teachers are more willing to adopt suggested procedures or interventions if they experience the following:

- They are encouraged to participate in team discussions; and if such discussion is free of technical jargon. This is made possible if consultants paraphrase teachers' comments rather than use jargon.
- They are given feedback on their performance as well as social praise.
- Consultants maintain a nonjudgmental perspective.
- Consultants summarize progress and preview the agenda for the next discussion.
- Consultants demonstrate genuineness and sincere interest in the teacher, as well as use effective listening skills.

Group decision-making requires a structured procedure for ensuring that the discussion remains focused and problem-oriented, that decisions are indeed reached, and that instructions about instructional intervention, information-gathering, or mutual assistance are clearly communicated and include accountability. Some educators suggest that school teams adopt the kind of group decision-making techniques prevalent in business and applied social research (Moore et al., 1989).

Knowledge about a wide range of evaluation techniques and record-keeping is important because of the need to assess student's academic and social skill deficits, as well as the need to track student performance accurately. These are primarily techniques associated with single-subject methodology (e.g., curriculum-based assessment, goal attainment scaling). It is important for the school support teams not to neglect this aspect of consultation, but rather to make these tools available to teachers.

Stages of Consultation: Besides its component skills, the team problem-solving process can be broken down into four stages:

- Problem Identification -- in which the team responds to a teacher's referral by discussing and clarifying the issues and gathering evidence/data about the student or classroom.

- Program Development -- in which a working relationship is developed with the teacher and an intervention plan is put together.

- Program Implementation -- in which the teacher, with support from the resource/consulting teacher, actually puts the intervention plan into practice.

- Program Evaluation -- in which feedback is given to the teacher about how well (s)he implemented the interventions and whether (s)he needs further training in a particular skill area, as well as about the student's progress.

Each of these stages represents separate tasks to be accomplished by the team members, and, therefore, also represents separate outcomes.

(ii) School Culture.

The importance of school culture has emerged from the research on effective schools and school improvement. Since program implementation is central to the process of school improvement, it follows that school culture also impacts on schools' attempts to implement educational innovations such as Blueprint. Indeed, one of the foremost experts on program implementation in education, Michael Fullan (1983), makes the distinction between evaluating the "degree of implementation" -- the extent to which the innovation is actually put into practice -- from those "factors affecting implementation" -- the contextual factors which facilitate or inhibit the process. Two aspects of school culture are prominent in evaluating a program like Blueprint -- administrative support and staff collegiality.

Administrative Support: In one extensive study, "principal support" was judged to be an important perceived cause of school-based teams' effectiveness (Chalfant and Van Dusen Pysh, 1989). A team's effectiveness depends to some degree on the administrative measures taken to incorporate the team's activity into the overall activity of the school. Principals are pivotal in legitimizing what the school support teams are doing by effectively communicating what the program is about, encouraging teachers to enter the consultation process, and facilitating logistical matters such as arranging for release time so that teachers can attend meetings.

Staff Collegiality: Of course, the onus for a positive school climate doesn't all fall on the principal. In the same survey mentioned above, another important reason for a school team's effectiveness was the presence of "faculty support". It has been demonstrated that educational innovations take root not only through formal means such as inservice training, but also through informal means such as teachers discussing their work, brainstorming together and planning together. Essentially, this is a social process in which teachers digest the information attached to a particular program and make it their own by customizing and personalizing it to fit their needs and the way they teach. "Social processing" and "Collegiality" are two terms that have been used recently to label this process (Seashore-Louis and Dentler, 1988; Little, 1982). Collegiality facilitates program implementation in three ways:

- It allows a "shared language" to develop through which teachers can talk to each other about a program. This shared language serves to counteract the technical jargon mentioned above as a problem with multi-disciplinary teams. It also allows teachers to discuss issues relevant to the program in a concrete and coherent way (Little, 1982).

- It promotes the development of shared ways of doing things. If teachers talk about their reasons for going to school support teams, and if this leads to more teachers approaching the teams, then the potential negative value attached to seeking help will be diminished.

- It encourages an atmosphere of trust and collaboration. This is extremely important in counteracting the conflict that will inevitably occur when people with different roles and statuses consult. Little (1982) found in her research on effective program implementation that "teachers in more successful schools were more openly confident of teachers' and administrators' abilities to act skilfully as observers, partners and advisors".

(iii) System Outcomes: Changes in the Referral Process.

Proponents of integration have pointed out that when there is no classroom-based intervention system in place, there is the danger that students will be referred to special education for placement who are having problems but are subsequently found to be either ineligible for pull-out programs or who do not require the intensive programming of a segregated program. This system is not only expensive [in one school board it was estimated to cost $1200 to assess each student (cited in Chalfant and Van Dusen Pysh, 1989)], but it also removes the student from the friends and supports of the home school. Also, children with "mild" learning and behavioural problems may end up not receiving any support; these are often described as children who "fall through the cracks".

HOW TO EVALUATE

DATA COLLECTION INSTRUMENTS

A variety of different types of instruments are available for collecting evaluation data, each with its own advantages and disadvantages, as well as suitability relative to program research interests and resources.

Document analysis involves extracting commonalities and differences from records and documents kept by people involved in a program. These sources of material can include the official statements and handbooks put out by the board or a school, log books kept by teachers or support staff, and the records kept by each school-based team. Document analysis is very time consuming. It can be facilitated by having all the participants use a similar format for record keeping. While guidelines and suggested formats about record keeping are being communicated to the school support teams and the resource teachers participating in Blueprint, they are free to adapt these or use their own formats. It is possible to maintain uniformity in data collection by constructing a report questionnaire which can be filled out by the researcher during an interview with staff during which staff have recourse to their files and logs while answering questions.

Observational methods are popular in the research field because of the richness and validity of the data gathered. However, to be done well, this method requires that a number of observers be trained intensively and spend considerable time in the field. This method is less appropriate for evaluating a project as large-scale as Blueprint. Spotty observation yields useless data since we cannot be sure how generalizable the results are unless a rigorous sampling strategy is used.

Surveys, in the form of questionnaires and interviews, are the most popular form of data collection for evaluating large-scale programs because of the ease and speed with which data can be gathered and analyzed. Most of the instruments recommended for use in evaluating Blueprint are self-report questionnaires or semi-structured interviews.

Questionnaires which generate a single score should be avoided. A single score is useful for experimental purposes, allowing the researcher to perform straightforward statistical computations such as correlations with other variables. However, we learn very little about the content of the teachers' responses. A single score allows us only to **identify** who is or is not implementing a program, and, therefore, can easily be perceived as an instrument for laying blame. A more productive type of questionnaire is one in which the individual items themselves, or groupings of items into sub-scales, allow us to **specify** areas in which teachers are experiencing success or difficulty.

RESEARCH DESIGN

Results can only be interpreted in comparison to something else; for example, to expectations about the attitudes or behaviour being assessed, or to the performance of other groups or the same group at a previous time. It is necessary to plan ahead to identify the types of comparisons that should be included so that proper procedures can be adhered to during data collection.

The most rigorous research designs require random sampling or perfectly matched control groups. It is possible to implement these designs in experimental situations in which researchers have complete control over variables as well as the sampling procedure. This is next to impossible in applied research settings. The 20 schools participating in the pilot year are volunteers, and we do not know if they differ in any way as a group from the schools that did not volunteer. Schools could be matched, but it would be difficult to know which criteria to use for the matching relative to the different types of data being collected. And finally, we are not dealing with a situation in which the effects of different inputs or treatments can be easily explained because the "success" of the program depends on a whole network of interacting program components. For example, student outcomes are dependent on the quality of staff development interacting with the effectiveness of the school support team, interacting with the consulting skill of the resource teacher, interacting with the effectiveness of the classroom interventions that are delivered by the teacher. In such a situation we are less interested in unravelling causes and effects than we are in evaluating the relative effectiveness of each program component and identifying the areas in which success is being attained or in which problems are arising.

Given the nature of Blueprint, there are three types of data comparison that would yield useful interpretations.

The first has to do with comparing the results with theory-based and practice-based expectations. So, for example, the consultation activities and skill use of the resource teachers would be compared with what the literature describes in detail as effective consultation. The comparison will identify areas of accomplishment or of deficit.

The second type of comparison involves comparing the implementation performance at different sites, using a case-study approach to evaluation. This approach is appropriate for Blueprint because the factors and conditions that we expect to influence the implementation process exist at the school level. By considering each school separately as well as in relation to the others, we can describe and compare similarities or differences in approaches taken towards implementing the program. For example, questions like the following could be addressed: Are there differences in school support team functioning, membership, record-keeping? Do the schools differ in the types of student problems brought to the team? Are different interventions attempted at different schools?

A case study approach allows effective formative evaluation. To identify what is or is not working and may involve a certain amount of accountability which is always threatening to those being evaluated. A case study approach, however, focuses on schools rather than individuals, thereby placing responsibility at an organizational rather than personal level. It is at the organizational level that subsequent change can be more easily managed.

The third type of comparison involves repeated measures. This design is particularly appropriate for summative outcome measures that would be gathered every year of the program implementation. Repeated measures analysis is particularly well suited to identifying long-term trends. So, for example, one important outcome measure will be yearly referral rates. By utilizing the data for the previous few years, as well as collecting the data for the next five years, statistical procedures could be used to identify the trend in referral rates over time. In this way it could be confirmed whether the program was having an effect over the referral process.

WHAT TO DO WITH RESULTS

FORMATIVE AND SUMMATIVE EVALUATION

Program evaluation can be formative, summative, or both. Formative and summative evaluation refer to the decision-making purposes to which the results are put. Formative evaluation is ongoing during program implementation, and the data is used to make adjustments in the program or to re-allocate resources. Summative evaluation takes place once a program has been fully implemented, and generally constitutes the final report summarizing the outcome data.

Since Student and Community Services is interested in ongoing evaluation and program adjustment, and because the time frame for Blueprint is five to seven years, it is likely that both formative and summative evaluations will be carried out.

TIMING

An important but often neglected aspect of doing evaluation is the issue of timing -- when to gather data, and when to feed back results. Formative evaluation requires quick turnaround between data collection and feedback of the results. Results are not necessarily written up in a formal report. The aim is to get the critical information back as quickly as possible to the program planners or decision-makers. Summative evaluation, on the other hand, usually takes the form of a final report summarizing the final outcomes of a program that has run its full course to complete implementation.

Because of the extended time frame of Blueprint, from five to seven years, as well as the large number of sites involved, it is most reasonable to use a combination of formative and summative evaluation each year to track progress both in terms of degree of implementation (process) and outcomes. A summary report could be issued at the end of each school year so that feedback would inform plans for the next year.

The evaluation of a multi-faceted program such as Blueprint will require that teachers, administrators and support staff complete a number of questionnaires and interviews. The question arises about how to do this without creating unnecessary anxiety in the participants. As Fullan (1985) points out, the first five months of any program is a time of high anxiety and confusion as participants try to learn to do new things. Unobtrusive measures are likely more suitable during this first stage. Intensive questionnaires and interviews could be used later in the evaluation. Logs, of course, will be kept on an ongoing basis. Short surveys, whose purpose is exploratory, may be done at any time with care taken that they do not require too much time to complete.

Another aspect of the timing of evaluation has to do with having reasonable expectations concerning program effectiveness at particular stages during program implementation. For example, in relation to student outcomes, the distinction has been made between a program's "impact" on students compared to actual "improvement" on their part. In other words, an effective program may, in the short term, have an impact on a student's learning experience before producing a change in achievement, which may only become evident in the long term. Therefore, it may be more appropriate to assess student outcomes in the first years of Blueprint using an impact-type measure such as Goal Attainment Scaling, rather than standardized achievement tests.

Expectations about program outcomes should always be judged relative to a given stage of implementation. For example, commitment to an educational innovation is often seen as a "precursor" of actual involvement rather than as a "consequence" (Corbett and Rossman, 1989). We expect that people will change their attitudes before they change their behaviour. Corbett and Rossman report that this may be wrong. Their research demonstrated that commitment to an innovation does not usually develop until late in the implementation of a program. Teachers are willing to try new approaches in their classrooms (i.e., change behaviour) even if they have not fully accepted the rationale associated with these new approaches. Not surprisingly, Corbett and Rossman (1989) also found that long-term success of a program is often based on experiences of early success. Behavioural change, therefore, is the primary indicator of successful program implementation in the short term, while commitment to the program should be evaluated in the long term.

MAKING SURE THE RESULTS ARE RELEVANT

It is important to make sure that the content and criteria contained in the survey instruments are congruent with the program's goals and represent reasonable expectations about outcomes.

A particular danger is what Little (1982) calls "measurement overkill" -- the situation in which "evaluation methods or measures assume a degree of conceptual coherence, sophistication and precision not reflected in the program description". This can often happen when importing instruments used in other programs or research contexts. Instruments utilized in other evaluations may be too specific to use when evaluating a program that is more eclectic in its approach. It is important, therefore, to establish whether an instrument was specifically constructed for general use across programs or for a particular type of program. In the latter case, an instrument may be modified and supplemented to make it more suitable for evaluating the program under consideration.

It is also important to look at the actual content of questionnaires, despite what the title says. For example, numerous "Attitudes Towards Mainstreaming" questionnaires have been developed. Some of these concentrate on teachers' attitudes towards different types of disability, including many of the most severe disabilities or handicaps. Other questionnaires focus on the philosophy or rationale motivating the drive towards integration. The latter type of questionnaire content would be more relevant for a program such as Blueprint than the former type, since the program is aimed at students with mild learning disabilities or handicaps.

Evaluation mismatch with a program as planned may also occur when one type of outcome is emphasized to the neglect of other, equally important, outcomes. In this case, a mismatch occurs because the data collected do not reflect the actual scope of the whole program. For example, there has been much criticism in the literature on staff development evaluation on the over-reliance on "opinionnaires" -- that is, questionnaires asking participants how satisfied they were with the inservice they received. While some valuable information about the inservice presentations may be gained, such evaluations are not adequate as "reliable or powerful predictors of actual implementation" (Little, 1982). The results from this type of questionnaire has been shown to contain a number of artifacts -- that is, predictable responses regardless of the quality of the inservice or the degree of actual subsequent implementation by the participants. Teachers typically

report that the content was already familiar to them regardless of workshop content; teachers usually rate their satisfaction as average to high; and they usually agree that what they have learned will affect how they teach their students from now on (Joyce and Showers, 1988).

FEEDBACK TO PARTICIPANTS

Results of evaluation studies have to be reported in a timely fashion and in a form that is easily understood by the participants if they are to be of any use to them. Because Blueprint will involve both formative and summative evaluation, and because different audiences are involved (administrators, teachers, support staff, parents), there will necessarily be a variety of report formats. A reasonable expectation is to report formative evaluation results to the schools on an ongoing basis, along with a final summative evaluation report at the end of the school year, possibly in June.

The results of questionnaires and interviews should be reported as quickly as they become available to the school support teams and the teachers involved in the form of short reports that be could be reviewed by the personnel involved at each school. These reports should be accompanied by discussions between researcher(s) and school staff to identify what issues and questions to focus on, and to identify the criteria by which to judge the results. Maintaining a communicative link between the researcher(s) and the staff at the schools can have two important consequences. First, the researcher(s) stay in touch with the participants' own understanding of, and attitude towards, the program. Second, giving staff the opportunity to review, interpret and use the data, will encourage a feeling of ownership for the evaluation research that would be absent if these results were communicated in a lengthy final report from an external source.

Summative evaluation requires a final report. The purpose of a final report is to present a comprehensive document summarizing how well a program is doing. This document is intended for a larger audience than the practitioners involved in the program itself such as administrators involved in the program, both at the board and school level, trustees and interested audiences outside the school board. The final report should summarize all of the formative evaluation reports mentioned above, as well as the interpretations made by the Blueprint committee.

PROCESS EVALUATION OF BLUEPRINT: POSSIBLE APPROACHES

As was mentioned earlier, process evaluation is a major element in evaluating the implementation of policy changes. It involves gathering data about what is actually happening at each of the schools in implementing the program. In the case of the pilot year of Blueprint, it is important to describe the implementation process in order to make any adaptations that may seem necessary. The implementation process has already begun.

During the 1989-1990 school year, inservice training was given to the resource teachers located at the 20 pilot schools to prepare them for taking on consulting duties during the 1990-1991 school year. Also, guidance was given to the schools to assist with setting up school-based teams. Handbooks were developed in four areas -- School Support Teams, Resource Teachers, Parental Involvement and Integration of the Exceptional Student. These will be sent to the pilot schools early in the 1990-91 school year. Ongoing inservice will be organized for the 1990-91 school year, which will also involve the regular teachers in these schools. Inservice has also been organized to bring three new schools on board.

The purpose of process evaluation is to establish how all this information actually gets put into practice at the different school sites. Given the likely degree of local initiative and adaptation of directives and guidelines, Blueprint will not be implemented in exactly the same way at all the schools. Process evaluation attempts to describe in relative detail the different implementation approaches, and to capture the essence of the variations between the implementation sites (schools).

The next section describes possible measures for process evaluation under each of the three main program components: Consultation, Intervention and Staff Development. Each of these program components has been subdivided into two or more of the main practitioner categories - school support teams, resource/consulting teachers and regular classroom teachers. Possible areas of investigation and questions that might be answered have been listed for each section. These lists of questions are not exhaustive; they represent examples of potential issues for study.

In some cases there are suggested instruments that are available from the literature.

CONSULTATION

<u>School Support Teams</u>

- **Membership.**

  How many members are there in total? How many administrators, support staff, regular teachers are there?

- **Meetings.**

  How frequently are they scheduled?

How well attended are they?

How successful is the team in coordinating staff schedules so that these meetings can occur with adequate frequency?

- **Productivity.**

  How productive are the discussions?

  Do all members participate equally?

  What gets discussed? Are any topics or issues neglected?

  What decisions are reached?

- **Procedures.**

  Are any procedures instituted by the team to regulate its meetings and activities? What are they? Are they documented anywhere?

  Are all members, including the regular teachers, aware of these procedures?

- **Record-keeping.**

  Does the team keep minutes of its meetings?

  Does the team assemble a case file for each referral? What forms are used? Who has access to these records, and how are they used?

Resource/Consulting Teachers

- **Caseload.**

  How many students do resource teachers still have in their resource rooms?

  How many students in regular classrooms do they consult about with the teacher?

- **Record-keeping.**

  Do they keep logs concerning their consultation activities?

  What is the format and content of these logs?

- **Practice Profile.**

  The resource teacher has actually engaged in what consultation activities?

What proportion of time is spent in each activity?

For this information we can use a self-report questionnaire containing a comprehensive and detailed list of consultation activities. Respondents can estimate the proportion of time spent within each category. Previous research can help us construct our list. For example, Tindal and Taylor-Pendergast (1989) offer the following taxonomy of consultation activities: 1. Written Communication, 2. Interpersonal Communication, 3. Non-interactive Observation, 4. Interactive Testing, 5. Records Review and Material Preparation, 6. Modelling and Demonstration.

Another example is a very comprehensive taxonomy of consultation skills required by consultants in meeting the needs of exceptional children constructed by West and Cannon (1988) based on the responses of 100 experts in the field. Forty-seven specific skills were organized under the following seven categories: 1. Consultation Theory/Models, 2. Research on Consultation Theory, Training and Practice, 3. Personal Characteristics, 4. Interactive Communication, 5. Collaborative Problem Solving, 6. Systems Change, 7. Equity Issues and Values/Belief Systems.

INTERVENTION

School Support Teams

- **Decision-making.**

  What instructional or behavioural goals are set for the students referred?

  What intervention plans are prepared?

  What types of student evaluation are used to judge intervention success?

- **Methodology.**

  What tools does the team use in carrying out intervention? For example, what types of diagnostic information were gathered? What types of evaluation of instructional outcome were carried out?

Resource/Consulting Teachers

- **Record-keeping.**

  Do they keep logs concerning the interventions they suggest to teachers, as well as the interventions they themselves attempt in the classroom?

  What is the format and content of these logs?

- **Practice Profile.**

  What intervention strategies do the resource/consulting teachers prefer, and

for what sorts of problems?

Regular Teachers

- **Practice Profile.**

  What classroom interventions does the teacher put into practice as a result of consultation with the school support teams and the resource teachers?

  A couple of excellent self-report questionnaires are available which contain lists of classroom intervention strategies suitable for children with special needs who are in regular classrooms. Bender and Ukeje (1989) developed the Bender Classroom Structure Questionnaire (BCSQ) -- a 40-item Likert scale questionnaire listing "research-proven instructional strategies in several areas, including tutoring strategies, cooperative instructional grouping, precision teaching, effective teaching behaviours, and cognitive strategies training". Another self-report questionnaire was developed very recently by Johnson and Pugach (1990) which they call the Teacher Intervention Questionnaire (TIQ). The questionnaire contains 57 strategies that were specifically identified as strategies that a teacher "might use before initiating a formal referral for special education services". This fact makes this questionnaire particularly suitable for use with Blueprint. The items are presented in Appendix A.

STAFF DEVELOPMENT

Central Office

- **Inservice Training.**

  Are staff satisfied with the inservice they receive?

  Are there skills areas that staff perceive as requiring more inservice?

  Is more intensive training required? By whom?

- **Guidelines.**

  Are the school support teams and resource/consulting teachers satisfied with the guidelines handbooks provided to them?

  What improvements do they suggest?

School Support Team

- **Public Relations within the school.**

  Does the team publish policy statements for the school staff explaining the team's function?

  Does the team meet with staff for the same purpose?

- **Networking.**

  Did the team attempt to assess ongoing needs to facilitate the consultation and intervention process?

  What inservice is scheduled?

  What types of resources from outside the school are used by the team?

  What forms of networking are set up with other school support teams, and for what purposes?

OUTCOME EVALUATION OF BLUEPRINT: POSSIBLE APPROACHES

The success of a policy initiative such as Blueprint involves a number of interrelated outcomes. Obviously, the overall aim of the program is to provide effective support in the regular classroom for students with special needs. This global aim, however, does not itself constitute an outcome that can be operationalized so that it could be measured. More specificity is required; therefore, Blueprint has to be broken down into its constituent parts. In this section possible outcomes are organized under the three Blueprint program components: Consultation, Intervention and Staff Development. Once again, possible questions for investigation have been listed for key variables and some instruments or approaches have been suggested.

CONSULTATION

- **Role Perceptions.**

  How much role ambiguity or role conflict do the resource/consulting teachers feel?

  What perceptions do regular and resource/consulting teachers have of each others' roles?

  What perceptions do they all have towards their role vis-à-vis the school support team?

  To measure role conflict, Crane and Iwanicki (1986) used a short eight-item Likert-scale questionnaire. Respondents were asked whether each of the statements reflected their job experience. Role ambiguity was measured by a similar six item Likert-scale questionnaire asking them to evaluate the statements in the same way. The items for both questionnaires are presented in Appendix B.

  In evaluating Blueprint these measures of role conflict and ambiguity are most relevant for the resource teachers. This is not to say that role perceptions are not a problem for regular teachers as well, but the degree of role conflict and ambiguity that regular teachers feel may come from sources unrelated to Blueprint. Blueprint will impact the role perceptions of special education staff, especially the resource teachers, more than any other staff.

  A semi-structured interview may be the best way to find out what roles the different participants expected to play in the consultation process, and what roles they actually played. The structure of the interview may conform to the different stages involved in consultation, and the responsibilities involved with each stage. For example, we may ask the school support team members, the resource teacher and the regular teacher separately what they thought their role was in the intervention programming stage of consultation, and then compare their answers. We can also ask them how

their actual responsibilities correspond to the roles they feel they should play in the consultation process. There are two outcomes involved here. One has to do with each participant's perceived actual role compared to their expectations. We are concerned here with establishing whether any of the participants feel they were asked to do more or less than they expected. The second type of outcome has to do with perceptions of each other's roles. For example, do resource teachers and regular teachers perceive the resource teacher's role in the same way or differently? We are concerned here with possible differences in role expectations which may form the basis of conflicts or misunderstanding. An obvious question related to this issue which could be asked during the interview is whether the participants are aware of any differences in perception or expectation and, if so, whether any measures have been taken to resolve them.

- **Satisfaction and Concerns.**

How satisfied are each of the participants (members of the school support team, resource/consulting and regular teachers) with the consultation process?

What problems can they identify, and what solutions do they suggest?

The most direct way to get this information is through an open-ended questionnaire or interview in which respondents are asked to state in their own words how satisfied they are with a program, and what their concerns are.

- **School Support Team Effectiveness.**

Do the team members have the requisite skills to make the team function effectively?

How well does the team perform in each of the four stages of consultation?

As mentioned in the introduction, three major types of team skills have been identified in the literature: 1) interpersonal communication skills, 2) group decision-making strategies and 3) evaluation techniques. The four stages of consultation include: 1) Problem Identification, 2) Program Development, 3) Program Implementation and 4) Program Evaluation.

In the past, open-ended questionnaires have been used to get information about either teachers' satisfaction with or concerns about team effectiveness (see the section above on Perceptions about the Consultation and Intervention Process) or about the team members' own opinions about their team's effectiveness. In just such an open-ended questionnaire, Chalfant and Van Dusen Pysh (1989) asked the members of TAT's to identify why their teams were effective. The answers fell under three general categories: 1) Support by the Principal, 2) Support by the school's faculty and 3) Team Attributes and Performance. This last category was further differentiated into:

- Team members were well trained in the team's operating procedures.

- Team members had a range of expertise.
- The team leader was excellent.
- Team members were excited about the service delivery model, interacted well together and worked to make the team effective.
- Team members had good relationships with teachers, made a special effort to show their respect for their colleagues, remained non-threatening and tried to earn faculty trust.
- Teams were successful in generating workable intervention strategies.

Unfortunately this questionnaire did not also ask what factors were perceived to make a team less effective. Although it would be easy enough to ask both of these open-ended questions, a more informative method would be to use a semi-structured interview. The questions making up this interview would take advantage of the component skill and stage taxonomies described above. In this way more precision can be attained in identifying which aspects of the team consultation are working well, and which require attention.

- **Changes in the Referral Process.**

Does Blueprint affect the referral process by increasing the number of students teachers "refer" to the school support team.

Does Blueprint affect the referral process by decreasing the number of students inappropriately referred to special education?

One of the most important system-level outcomes is the extent to which the referral process will be affected by Blueprint. It is also an important outcome that should be included in summative evaluation reports. To measure this outcome requires compiling statistics on referral rates to special education and to the school support teams, for several years before and after the Blueprint implementation began.

Tracking referrals to the support teams (possibly broken down by school trimester), for each of the five years that it will take to implement Blueprint throughout the school board should give us a concrete indication of the degree to which teachers are indeed taking advantage of the program.

Consideration of the data for referral to special education for the pilot year should give some indication whether the program is having an early impact on the referral process (formative evaluation). After five years of gathering these data, it will be possible to perform a time-series analysis to confirm that the program is having an effect in the long-run (summative evaluation).

By tracking both these referral rates -- to the school support teams and to special education -- for all the schools involved, it will be possible to reach

some solid conclusions about the overall impact of Blueprint on the referral process (summative evaluation). By comparing rates between schools, it will be possible to identify schools where the process may be going awry and, therefore, requiring assistance (formative evaluation).

INTERVENTION

- **Intervention Acceptability.**

  What intervention strategies were used by regular teachers as a consequence of consulting with the school support team and the resource/consulting teacher?

  How do regular teachers rate the effectiveness of these strategies?

  How do the regular teachers rate the ease of use of these strategies?

  How well does the team and resource/consulting teacher understand and appreciate the regular classroom situation, in the regular teachers' opinion?

  As mentioned in the introduction, the best instrument to use in this case is a comprehensive questionnaire developed by Johnson and Pugach (1990) called the Teacher Intervention Questionnaire (see Appendix A). Also, one open-ended question could be added to the questionnaire, asking teachers what factors they consider when judging the feasibility of using particular intervention strategies in their classroom.

- **Student Outcomes.**

  To what degree do the students "referred" to the teams attain their intervention goals?

  Are some types of goals better attained than others?

  Are there differences between schools in goals set, and in degree of goal attainment?

  Are there differences in goal setting and goal attainment when comparing grade levels? Are these differences observable across schools?

  Is there a link between goal attainment and any of the process measures, or outcomes involving the consultation or intervention process?

  Goal attainment is the best method for measuring student outcomes with a program like Blueprint in which intervention goals and plans are individualized for each student. This method of assessing student performance, however, requires great care in its use. The procedure requires specificity and a certain amount of analytic ability to set goals, set effective intervention plans and produce challenging yet reasonable criteria by which to evaluate levels of goal attainment. For example, there is the

danger that a program will appear more effective than another by setting rather unchallenging goals for its clients or students. Any evaluator using the results of this form of assessment will have to look closely at the goals and criteria set by different consultants and teachers.

Since the school support teams will have a certain amount of autonomy in the procedural implementation of Blueprint, it may be that goal attainment scaling will not be used at every school involved in the pilot year. Under these circumstances it would be possible to collect some data similar, but not as rigorous as, goal attainment scaling data. For example, in their study of the functioning of TAT's, Chalfant and Van Dusen Pysh (1989) used a "Progress Report Questionnaire" which was filled out by each team as a group. Each team was asked to list the problems identified for each student referred to the team, the goals set for each student and the intervention plans decided upon. This was recorded in the team members' own words. Finally, the "success" of the intervention plans was evaluated according to three criteria: 1) "The student had achieved or nearly achieved the goals set" in the team members estimation, 2) "The teacher and the team agreed that the teacher was coping with the problem satisfactorily" and 3) "Team support had been withdrawn for at least 6 weeks" (Chalfant and Van Dusen Pysh, 1989).

- **Parent Outcomes.**

How aware are parents of the team consultation process?

What types of contacts are made with the parent by the team, resource/consulting teacher or regular teacher?

How are parents involved in the consultation and intervention process?

How satisfied are the parents with this process? Do they prefer this process to referral to special education, possibly leading to a pull-out program?

What problems do parents perceive, or concerns do they have, about the process?

Unfortunately, there are few examples of evaluative research in which a measure of parental involvement has been taken. In a recent article on the role of parents in special education, Lipsky (1989) identifies only one instrument -- The Parent/Family Involvement Index developed by Cone et al. (1985). This questionnaire is presented to the school-based staff working most knowledgeable of the family's participation in the program. It contains 63 items requiring a "yes", "no", "not applicable" or "don't know" response. The questionnaire is filled out separately for the mother and the father. The 12 categories of types of involvement are: 1) contact with the teacher, 2) participation in the special education process, 3) transportation, 4) observations at school, 5) educational activities at home, 6) attending parent education/consultation meetings, 7) classroom volunteering, 8. parent-parent contact and support, 9) involvement with administration, 10) involvement in fund raising activities, 11) involvement in advocacy groups and 12) disseminating information.

This instrument is too long and not completely appropriate for use in Blueprint. The questionnaire is directed to parents whose children are in special education programs while Blueprint is directed to pre-referral intervention. Nevertheless, most of the items appear to be relevant, so this instrument can be a valuable resource for constructing a questionnaire. It would probably be preferable to have the parents themselves fill out the questionnaire. The danger here, of course, is the possibility of a low return rate. This may be somewhat counter-acted by asking parents not only to indicate their involvement, but also to communicate their relative satisfaction about the program, and to identify areas of concern. To further encourage an acceptable return rate, it will be necessary to keep the questionnaire relatively short and to the point.

- **Changes in the Proportion of Students Demitted from School Support Team Intervention and from Special Education.**

  Does Blueprint affect the number of students whose problems are successfully resolved before referral to special education?

  Does Blueprint affect the number of exceptional students who are judged not to require further special education support?

  Like the changes in referral rate, this indicator is an important system-level outcome. We sometimes find the term "exit rate" used to label this indicator. Exit rate refers to the proportion of cases successfully resolved. Exit rates, therefore, represent a summary "score" of a program's intervention effectiveness. We would expect a gradual increase in the exit rates over the years as the school support teams, resource/consulting teachers and regular teachers become progressively more effective.

STAFF DEVELOPMENT

- **Attitudes Towards Integration.**

  Do the attitudes towards integration of those participants (members of school support teams, resource/consulting teachers) who experienced inservice during the 1989-1990 school year, change as a result of their experience of actually trying to implement the program during the 1990-1991 school year?

  Do the attitudes towards integration of the new participants (new volunteer schools), change as a result of their inservice experience?

  Two different types of instrument have been used to measure attitudes towards integration (mainstreaming): Likert-scale and Response Choice questionnaires.

  Likert-scale Questionnaires. These questionnaires ask respondents how strongly they agree or disagree with a series of statements about students with special needs and integration.

One questionnaire was developed by Joan Berryman (Berryman and Neal, 1980). It was aimed not only at educators, but also at the general public. The questionnaire contained 18 items, a few of which were general statements about integration but the bulk of which made reference to particular disabilities (e.g., "Blind students who cannot read standard printed material should be in regular classrooms.") While attractive because of its short length and possibility of use with non-educators, this questionnaire is probably not appropriate for use with Blueprint because of its emphasis on the more extreme types of handicap or learning disability.

A more comprehensive questionnaire that focuses more on the rationale and the concerns associated with integration was developed by Garvar-Pinhas and Schmelkin (1989). It consists of 50 items. A factor analysis yielded four factors, each representing a different major concern with the process of integration: Academic Concerns (18 items), Socio-emotional Concerns (9 items), Administrative Concerns (8 items), and Teacher Concerns (6 items). The results underline the multi-dimensionality nature of educators' attitudes towards integration.

Although this is the most comprehensive of the questionnaires, it may be a little too long to be used as a part of an evaluation of Blueprint, and it contains items associated with administrative and teacher concerns that may be too provocative. For example, one item states that "Principals believe that youngsters with a handicap cannot make appropriate academic progress when they are integrated into the regular classroom". Principals may object to having this statement included. We suggest that concerns about school leadership, or about the negative experiences associated with integration, would be better obtained through open-ended interviews. In this way, also, concerns could be tied in with the particular school situation.

The questionnaire that appears to be the most appropriate for use with Blueprint was developed by Larrivee and Cook (1979). It contains 30 items. The scale has a solid conceptual basis -- the items were constructed with an eye towards a number of hypothesized dimensions of teacher attitude. A factor analysis produced five identified factors, or dimensions: 1) general philosophy on integration (mainstreaming), 2) classroom behaviour of special needs children, 3) perceived ability to teach special needs children, 4) classroom management with special needs children, 5) academic and social growth of the special needs child.

The content of this questionnaire provides a good coverage of the important issues involved with integration, while at the same time being not too long. The questionnaire items are presented in Appendix C.

Response Choice Questionnaires. Another approach to measuring "attitudes" towards integration is the response choice questionnaire. In this method, short descriptive vignettes are presented and the respondent is asked to indicate what they would do about the case described. The multiple choice items usually consist of alternative decisions about placement for the student. We found two examples of this type of questionnaire. One is the Classroom Integration Questionnaire developed by Kaufman et al. (1985)

for a large-scale evaluation of a mainstreaming program. The other was a recent needs assessment questionnaire sent to Scarborough's special education staff (1989). Examples of the vignettes, and the response choices, are presented in Appendix D.

These are very interesting questionnaires in that they do not really measure attitudes as much as intentions, although this term is not used to describe the purpose of these questionnaires. Social psychology has recently demonstrated that this distinction is more than simply a linguistic one. Attitudes and intentions predict behaviour differently under different circumstances. For example, attitudes predict behaviour better when the behaviour involved does not requires a lot of effort, expertise or personal risk, whereas intentions predict behaviour better in the opposite case. It would seem prudent, therefore, to use both types of measurement. Results from the attitude questionnaires (Likert scale) can be used to identify needs around explaining the program better (i.e., selling the approach or rationale underlying integration), while results from the intention-based questionnaires (response choice) can be used to identify needs around encouraging teachers to actually take action in approaching the school support teams with problems.

- **Practitioner Skill Development.**

To what degree do the resource/consulting teachers put into practice the new skills covered in the inservice training and required by their new roles?

In what skills do the resource/consulting teachers feel they need further training?

What skills do they feel were under-utilized because of the situations they encountered in the schools? What are these inhibiting factors?

Outcome information about practitioner skill development can come from two sources. One source is the process data concerning the consultation activities in which the resource/consulting teachers report have participated. Although this is "process" data concerning the consultation process, it is also "outcome" data concerning the staff development process. In other words, the impact of the inservice training can be seen in the degree to which the skills covered are actually put into practice. The second source of data is the resource/consulting teachers' own self-reports of the skills in which they feel competent.

- **School Culture.**

What is the degree of administrative support given to implementing Blueprint?

How much staff collegiality/collaboration exists in the implementation of Blueprint?

Is there any relationship between these two factors and any of the program's outcomes?

School culture is not really a staff development outcome but rather an important contextual variable affecting these outcomes.

Information about administrative support may be gathered through a short interview with the principals in each school. Asking a few questions about this issue to the team members and the regular teachers would also be informative. Staff collegiality can be measured by including a few questions concerning the extent to which discussion and shared problem-solving was engaged in with other teachers, and the degree to which the organizational structures were in place that would allow this to happen (e.g., teachers' committees).

SUMMARY

This literature review and evaluation "tool kit" provides a summary of the research literature about evaluation of large-scale intervention policies like Scarborough's "Blueprint for the Future". It identifies issues and concerns that have been addressed in such evaluations and offers a wide range of concrete suggestions about evaluation methods that could be used for both formative and summative evaluation during the implementation of Blueprint. It is hoped that this report will assist in the creation of a realistic plan for the Blueprint evaluation.

BIBLIOGRAPHY

Bauwens, J., Hourcade, J.J., and Friend, M. (1989) Cooperative Teaching: A Model for General and Special Education Integration. *Remedial and Special Education, 10(2)*, 17-22.

Bender, W.M., and Ukeje, I.C. (1989) Instructional Strategies in Mainstream Classrooms: Prediction of the Strategies Teachers Select. *Remedial and Special Education, 10(2)*, 23-30.

Berryman, J.D. (1988) Attitudes Toward Mainstreaming Scale: Factorial Validity for a Lay Population. *Educational and Psychological Measurement, 48*, 231-236.

Berryman, J.D. (1989) Attitudes of the Public Toward Educational Mainstreaming. *Remedial and Special Education, 10(4)*, 44-49.

Berryman, J.D., and Neal, W.R. (1980) The Cross Validation of the Attitudes Toward Mainstreaming Scale (ATMS). *Educational and Psychological Measurement, 40*, 469-474.

Center, Y., and Ward, J. (1987) Teachers' Attitudes Towards the Integration of Disabled Children Into Regular Schools. *The Exceptional Child, 34(1)*, 41-56.

Chalfant, J.C., and Van Dusen Pysh, M. (1989) Teacher Assistance Teams: Five Descriptive Studies on 96 Teams. *Remedial and Special Education, 10(6)*, 49-58.

Cone, J.D., Delawyer, D.D., and Wolfe, V.V. (1985) Assessing Parent Participation: The Parent/Family Involvement Index. *Exceptional Children, 51(5)*, 417-424.

Corbett, H.D., and Rossman, G.B. (1989) Three Paths to Implementing Change: A Research Note. *Curriculum Inquiry, 19(2)*, 163-190.

Crane, S.J., and Iwanicki, E.F. (1986) Perceived Role Conflict, Role Ambiguity, and Burnout Among Special Education Teachers. *Remedial and Special Education, 7(2)*, 24-31.

Donnallan, A.M., and Mirenda, P.M. (1984) Issues Related to Professional Involvement with Families with Individuals with Autism and Other Severe Handicaps. *The Journal of the Association for Persons with Severe Handicaps, 9(2)*, 16-22.

Fullan, M. (1983) Evaluating Program Implementation: What can be Learned from Follow Through. *Curriculum Inquiry, 13(2)*, 215-227.

Fullan, M. (1985) Change Processes and Strategies at the Local Level. *The Elementary School Journal, 85(3)*, 391-421.

Garvar-Pinhas, A., and Schmelkin, L.P. (1989) Administrators' and Teachers' Attitudes Toward Mainstreaming. *Remedial and Special Education, 10(4)*, 38-43.

Glatthorn, A.A. (1990) Cooperative Professional Development: Facilitating the Growth of the Special Education Teacher and the Classroom Teacher. *Remedial and Special Education, 11(3)*, 29-34.

Hawryluk, M.K., and Smallwood, D.L. (1986) Assessing and Addressing Consultee Variables in School-based Behavioral Consultation. *School Psychology Review, 15(4)*, 519-528.

Hayek, R.A. (1987) The Teacher Assistance Team: A Pre-referral Support System. *Focus on Exceptional Children, September*, 1-7.

Hayes, K., and Gunn, P. (1988) Attitudes of Parents and Teachers Toward Mainstreaming. *The Exceptional Child, 35(1)*, 31-38.

Heron, T.E., and Kimball, W.H. (1988) Gaining Perspective with the Educational Consultation Research Base: Ecological Considerations and Further Recommendations. *Remedial and Special Education, 9(6)*, 21-28.

Johnson, L.J., Pugach, M.C., and Hammitte, D.J. (1988) Barriers to effective special Education Consultation. *Remedial and Special Education, 9(6)*, 41-47.

Johnson, L.J., and Pugach, M.C. (1990) Classroom Teachers' Views of Intervention Strategies for Learning and Behaviour Problems: Which are Reasonable and how Frequently are they used? *The Journal of Special Education, 24(1)*, 69-84.

Joyce, B., and Showers, B. (1988) *Student Achievement Through Staff Development*. New York: Longman.

Kaufman, M., Agard, J.A., and Semmel, M.I. (1985) *Mainstreaming: Learners and Their Environment*. Cambridge, MA.: Brookline Books.

Larrivee, B. (1981) Effect of Inservice Training Intensity on Teachers' Attitudes Toward Mainstreaming. *Exceptional Children, 48(1)*, 34-39.

Larrivee, B., and Cook, L. (1979) Mainstreaming: A Study of the Variables Affecting Teacher Attitude. *Journal of Special Education, 13*, 315-324.

Leyser, Y. (1988) The Impact of Training in Mainstreaming on Teacher Attitudes, Management Techniques, and the Behaviour of Disabled Students. *The Exceptional Child, 35(2)*, 85-96.

Lipsky, D.K. (1989) The Roles of Parents. In D.K. Lipsky and A. Gartner (Eds.), *Beyond Separate Education: Quality Education for all (pp. 159-179)*. Baltimore: Paul H. Brookes Pub. Co.

Little, J.W. (1982) Norms of Collegiality and Experimentation: Workplace Conditions of School Success. *American Educational Research Journal, 19(3)*, 325-340.

Maher, C.A. (1983) Goal Attainment Scaling: A Method for Evaluating Special Education Services. *Exceptional Children, 49(6)*, 529-536.

Maher, C.A., and Barbrack, C.R. (1984) Evaluating the Individual Counseling of Conduct Problem Adolescents: The Goal Attainment Scaling Method. *Journal of School Psychology, 22*, 285-297.

Margolis, H., and McGettigan, J. (1988) Managing Resistance to Instructional Modifications in Mainstreamed Environments. *Remedial and Special Education, 9(4)*, 15-21.

Martens, B.K., and Meller, P.J. (1989) Influence of Child and Classroom Characteristics on Acceptability of Interventions. *Journal of School Psychology, 27*, 237-245.

Martens, B.K., Peterson, R.L., Witt, J.C., and Cirone, S. (1986) Teacher Perceptions of School-based Interventions. *Exceptional Children, 53(3)*, 213-223.

Moore, K.J., Fifield, M.B., Spira, D.A., and Scarlato, M. (1989) Child Study Team Decision Making in Special Education: Improving the Process. *Remedial and Special Education, 10(4)*, 50-58.

Phillips, V., and McCullough, L. (1990) Consultation-based Programming: Instituting the Collaborative Ethic in Schools. *Exceptional Children, 56(4)*, 291-304.

Pryzansky, W.B., and White, G.W. (1983) The Influence of Consultee Characteristics on Preferences for Consultation Approaches. *Professional Psychology: Research and Practice, 14*, 651-657.

Seashore-Louis, K., and Dentler, R.A. (1988) Knowledge Use and School Improvement. *Curriculum Inquiry, 18(1)*, 33-62.

Tindal, G.A., and Taylor-Pendergast, S.J. (1989) A Taxonomy for Objectively Analyzing the Consultation Process. *Remedial and Special Education, 10(2)*, 6-16.

Tindal, G., Shinn, M.R., and Rodden-Nord, K. (1990) Contextually Based School Consultation: Influential variables. *Exceptional Children, 56(4)*, 324-336.

West, J.F., and Cannon, G.S. (1988) Essential Collaborative Consultation Competencies for Regular and Special Educators. *Journal of Learning Disabilities, 21(1)*, 56-63.

Witt, J.C., and Martens, B.K. (1988) Problems with Problem-solving Consultation: A Re-Analysis of Assumptions, Methods, and Goals. *School Psychology Review, 17(2)*, 211-226.

Yau, M. (1988) *Alternative Service Delivery Models for Learning Disabled Students.* Toronto: Toronto Board of Education, #188.

APPENDIX A

Teacher Intervention Questionnaire
(Johnson and Pugach, 1990)

1. Collect data from other teachers about the student's behaviour problem.
2. Emphasize the good qualities of the student's behaviour.
3. Talk with the student's parent about ways to work on the student's academic problem.
4. Talk with other classroom teachers about ways to work on the student's academic problem.
5. Adjust performance expectations in the student's problem area to increase the likelihood that the student will succeed (e.g. reduce number of tasks, change grading criteria, etc.).
6. Encourage and support student's attempts at academic improvement.
7. Establish specific consequences for appropriate student behaviour.
8. Compile data within your classroom about the student's behaviour problem.
9. Demonstrate difficult tasks for the student.
10. Isolate the student from the class.
11. Use peer tutors, volunteers, or aides to work with student individually.
12. Change the physical arrangement of the classroom.
13. Ignore inappropriate behaviour and attempt to change it using a positive approach.
14. Establish specific consequences for inappropriate student behaviour such as taking privileges away, assigning after-school detention, etc.
15. Compile data within your classroom about the student's academic problem.
16. Present same information at a slower pace or in a different sequence.
17. Talk with school psychologist, special education teachers, counsellor, or other special education personnel about ways to work on the student's academic problem.
18. Use alternative textbook or materials.
19. Try different reinforcers for appropriate student behaviour.
20. Identify the student's behaviour problem in observable terms.
21. Provide additional drill or practice.

22. Move the student with academic problems to another spot in the classroom.

23. Develop behaviour management objectives specific to the student's behaviour problems.

24. Talk with the student's parent about ways to work on the student's behaviour problem.

25. Discuss academic problem with student to get student's perspective.

26. Collect data from the principal about the student's behaviour problem.

27. Modify overall classroom rules.

28. Clarify behavioral expectations to the student.

29. Call the class's attention to the student's inappropriate behaviour and enlist their support in trying to change it.

30. Use supplementary instructional techniques (e.g. calculators, audio-recording of textbooks, computer-assisted instruction).

31. Move the student with the behaviour problem to another spot in the classroom.

32. Collect data from other teachers about the student's academic problem.

33. Send student to the principal.

34. Observe the student in a situation outside the classroom.

35. Identify the student's academic problem in observable terms.

36. Go over lesson again with individual student.

37. Request a staffing.

38. Modify management routines for entire class.

39. Clarify academic expectations to student.

40. Talk with the principal about ways to work on the student's behaviour problem.

41. Review student's cumulative folder.

42. Develop instructional objectives specific to student's academic problem.

43. Transfer student to another teacher's class.

44. Give additional explicit oral or written instructions to the student.

45. Increase consistency of response to appropriate and inappropriate behaviour.

46. Use a different grouping technique (e.g. small group, individualized instruction, change group, etc).

47. Have student monitor own progress toward specific academic goal.

48. Have student monitor own progress toward specific behavioral goal.

49. Talk with the principal about ways to work on the student's academic problem.

50. Examine factors related to student's health or family situation that may contribute to student's problem.

51. Encourage and support student's attempts at improving behaviour.

52. Give more frequent systematic corrective feedback to student's answers.

53. Analyze subskills in the student's academic problem area and teach prerequisite skills first.

54. Discuss behaviour problem with student to get student's perspective.

55. Talk with school psychologist, special education teachers, counsellor, or other special education personnel about ways to work on the student's behaviour problem.

56. Collect data from the principal about the student's academic problem.

57. Talk with other classroom teachers about ways to work on the student's behaviour problem.

APPENDIX B

Role Conflict and Ambiguity Questionnaire
(Crane and Iwanicki, 1986)

A. Role Conflict.

1. I have to do things that should be done differently.
2. I have to work on unnecessary things.
3. I receive an assignment without the proper manpower to complete it.
4. I receive an assignment without adequate resources and materials to execute it.
5. I work with two or more groups who operate quite differently.
6. I have to buck a rule or policy in order to carry out an assignment.
7. I receive incompatible requests from two or more people.
8. I do things that are apt to be accepted by one person and not accepted by others.

B. Role Ambiguity.

1. I know exactly what is expected of me.
2. I feel certain about how much authority I have.
3. Clear, planned goals exist for my job.
4. I know that I have divided my time properly.
5. I know what my responsibilities are.
6. Explanation is clear of what has to be done.

APPENDIX C

Attitudes Towards Mainstreaming
(Larrivee and Cook, 1979)

1. Many of the things teachers do with regular students in a classroom are appropriate for special-needs students.

2. The needs of handicapped students can best be served through special, separate classes.

3. A special-needs child's classroom behaviour generally requires more patience from the teacher than does the behaviour of a normal child.

4. The challenge of being in a regular classroom will promote the academic growth of the special-needs child.

5. The extra attention special-needs students require will be to the detriment of the other students.

6. Mainstreaming offers mixed group interaction which will foster understanding and acceptance of differences.

7. It is difficult to maintain order in a regular classroom that contains a special-needs child.

8. Regular teachers possess a great deal of the expertise necessary to work with special-needs students.

9. The behaviour of special-needs students will set a bad example for the other students.

10. Isolation in a special class has a negative effect on the social and emotional development of a special-needs student.

11. The special-needs child will probably develop academic skills more rapidly in a special classroom than in a regular classroom.

12. Most special-needs children do not make an adequate attempt to complete their assignments.

13. Integration on special-needs children will require significant changes in regular classroom procedures.

14. Most special-needs children are well behaved in the classroom.

15. The contact regular-class students have with mainstreamed students may be harmful.

16. Regular-classroom teachers have sufficient training to teach children with special needs.

17. Special-needs students will monopolize the teacher's time.

18. Mainstreaming the special-needs child will promote his/her social independence.

19. It is likely that a special-needs child will exhibit behaviour problems in a regular classroom setting.

20. Diagnostic-prescriptive teaching is better done by resource-room or special education teachers than by regular-classroom teachers.

21. The integration of special-needs students can be beneficial for regular teachers.

22. Special-needs children need to be told exactly what to do and how to do it.

23. Mainstreaming is likely to have a negative effect on the emotional development of the special-needs child.

24. Increased freedom in the classroom creates too much confusion.

25. The special-needs child will be socially isolated by regular-classroom students.

26. Parents of a special-needs child present no greater problem for a classroom teacher than those of a normal child.

27. Integration of special-needs children will necessitate extensive retraining of regular teachers.

28. Special-needs students should be given every opportunity to function in the regular classroom setting, where possible.

29. Special-needs children are likely to create confusion in the regular classroom.

30. The presence of special-needs students will promote acceptance of differences on the part of regular students.

APPENDIX D

Examples of Items from Response Choice Questionnaires

A. Classroom Intervention Questionnaire (Kaufman et al., 1985)

1. Although Eric seems very bright doing science experiments and other activities involving manipulation of materials, he still does poorly in his reading and arithmetic assignments.

2. Richard is overly dependent on the teacher. He seeks out excessive adult attention. He has no sense of self-direction. He never does anything without being pushed or prodded.

3. Florence is immature and oversensitive, likely to burst into tears at the slightest provocation. She pouts or sulks if she can't do what she wants to do.

Respondents are asked to choose one of the following placements for each child:

- In regular classroom
- In regular classroom all day with supplemental materials and advice
- In regular classroom part of the day with supplemental materials and advice
- In special class all day
- Not for public education

B. Special Education Questionnaire (Scarborough Board of Education, 1989)

1. Grade 5 student approximately one year behind in reading and spelling. Math okay. Well motivated. Good peer relationships.

2. Grade 6 student approximately one and a half years behind in all academics. Poorly motivated. Resistant to intervention by teacher. Poor peer relationships.

3. Grade 8 student approximately two years behind in language areas. One year behind in mathematics. Poorly motivated. Few friends. Poor self image.

Respondents are asked to choose the most appropriate support for each child from the following:

- Classroom modifications
- Resource personnel assisting within the classroom
- Withdrawal for support within the school
- Withdrawal to a congregated classroom setting